

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-2 (Canceled).

3. (Currently Amended) A method according to claim 33, ~~claim 1~~, wherein said electrical transmission line comprises a pair of electrical conductors and said method further comprises the antecedent step of connecting said electrical conductors together.

4. (Original) A method according to claim 3, further comprising connecting said electrical conductors together by applying a resistive load between said conductors.

5. (Original) A method according to claim 4, further comprising remotely controlling a termination device to apply said resistive load between said conductors.

6. (Previously Presented) A method according to claims 4, wherein said resistive load has a resistance of less than 600Ω .

7. (Original) A method according to claim 6, wherein said resistive load has a resistance of 0Ω to 10Ω .

8. (Currently Amended) A method according to claim 33, ~~claim 1~~, wherein said electrical transmission line comprises a transmission line in a telecommunications network.

9. (Original) A method according to claim 8, wherein said transmission line extends between a telephone exchange and a customer's premises.

10. (Original) A method according to claim 9, further comprising applying said current at said telephone exchange and applying said resistive load at said customer's premises.

11. (Original) A method according to claim 10, wherein said termination device is situated in said customer's premises.

12. (Original) A method according to claim 10, further comprising applying said resistive load at said telephone exchange and applying said current at a point between said telephone exchange and said customer's premises.

13. (Original) A method according to claim 12, further comprising applying electric current at said customer's premises.

Claims 14-16 (Canceled).

17. (Currently Amended) A method according to claim 33, ~~claim 16~~, wherein said predetermined threshold value is between 5Ω and 10Ω.

Claims 18-19 (Canceled).

20. (Currently Amended) A method of testing an electrical transmission line by carrying out a sequence of tests, wherein one of said tests comprises detecting a fault in a joint connecting sections of said electrical transmission line together according to the method of claim 33, ~~claim 4~~.

21. (Original) A method according to claim 20, wherein said sequence is arranged such that said test to detect a fault in said joint is carried out after:

a) a test to check for connectivity between end points of said electrical transmission line indicates that said connectivity exists; and

b) a test to check whether said electrical transmission line is in contact with earth and/or another electrical transmission line indicates that no such contact exists.

22. (Original) A method according to claim 21, wherein said end points are a telephone exchange and a customer's premises.

Claims 23-24 (Canceled).

25. (Currently Amended) Apparatus according to claim 34, ~~claim 23~~, wherein said electrical transmission line comprises a transmission line in a telecommunications network comprising a pair of electrical conductors.

26. (Original) Apparatus according to claim 25, wherein said apparatus further comprises means for controlling a termination device installed between said conductors, said termination device being operable to connect said electrical conductors together with a resistive load.

27. (Original) Apparatus according to claim 26, wherein said transmission line extends between a telephone exchange and a customer's premises.

28. (Original) Apparatus according to claim 27, wherein said termination device is situated in said customer's premises.

Claims 29-32 (Canceled).

33. (New) A method of detecting a fault in a joint, connecting sections of an electrical transmission line together, said method comprising:

applying a direct current to said electrical transmission line in one direction;

detecting the condition of said joint by,

measuring the electrical resistance of said transmission line,

reversing the direction of said direct current,

re-measuring the electrical resistance of said line, and

detecting a dependence in electrical resistance of said electrical transmission line upon the direction of flow of said direct current; and

detecting deterioration of said joint by detecting a change in electrical resistance greater than a predetermined threshold.

34. (New) An apparatus for detecting a fault in a joint, connecting sections of an electrical transmission line together, said apparatus comprising:

means for applying direct current to said electrical transmission line in one direction and a reversed direction;

means for measuring the electrical resistance of said transmission line in said one and reversed directions;

means for detecting a dependence in electrical resistance of said electrical transmission line upon the direction of flow of said direct current; and

means for detecting deterioration of said joint by detecting a change in electrical resistance greater than a predetermined threshold.

35. (New) An apparatus according to claim 34, wherein said predetermined threshold value is between 5Ω and 100Ω .